FIG. 1

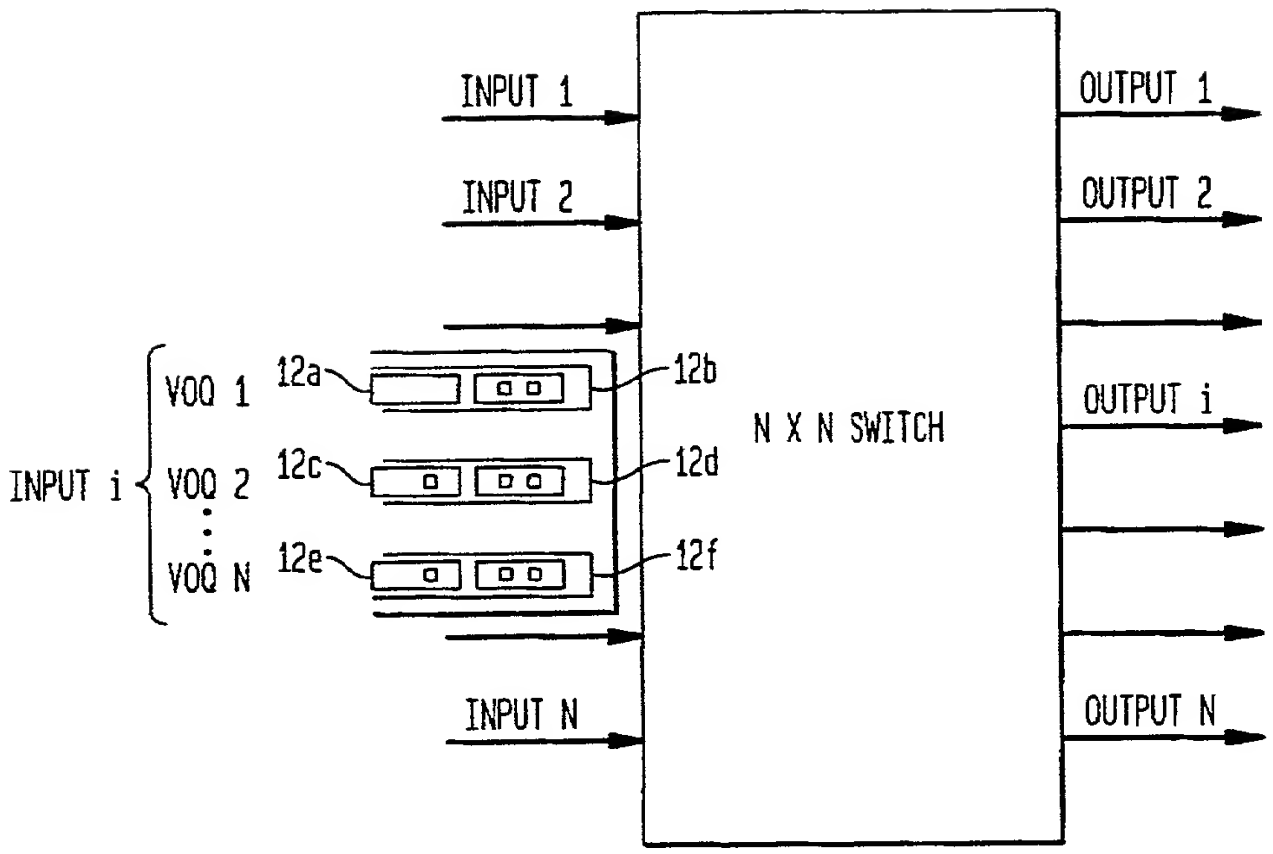
INPUT 1
INPUT 2
INPUT i
VOQ 1
VOQ 2
VOQ N
12a
12b
12c
12d
12e
12f
INPUT N
N X N SWITCH
OUTPUT 1
OUTPUT 2
OUTPUT i
OUTPUT N

FIG. 2A

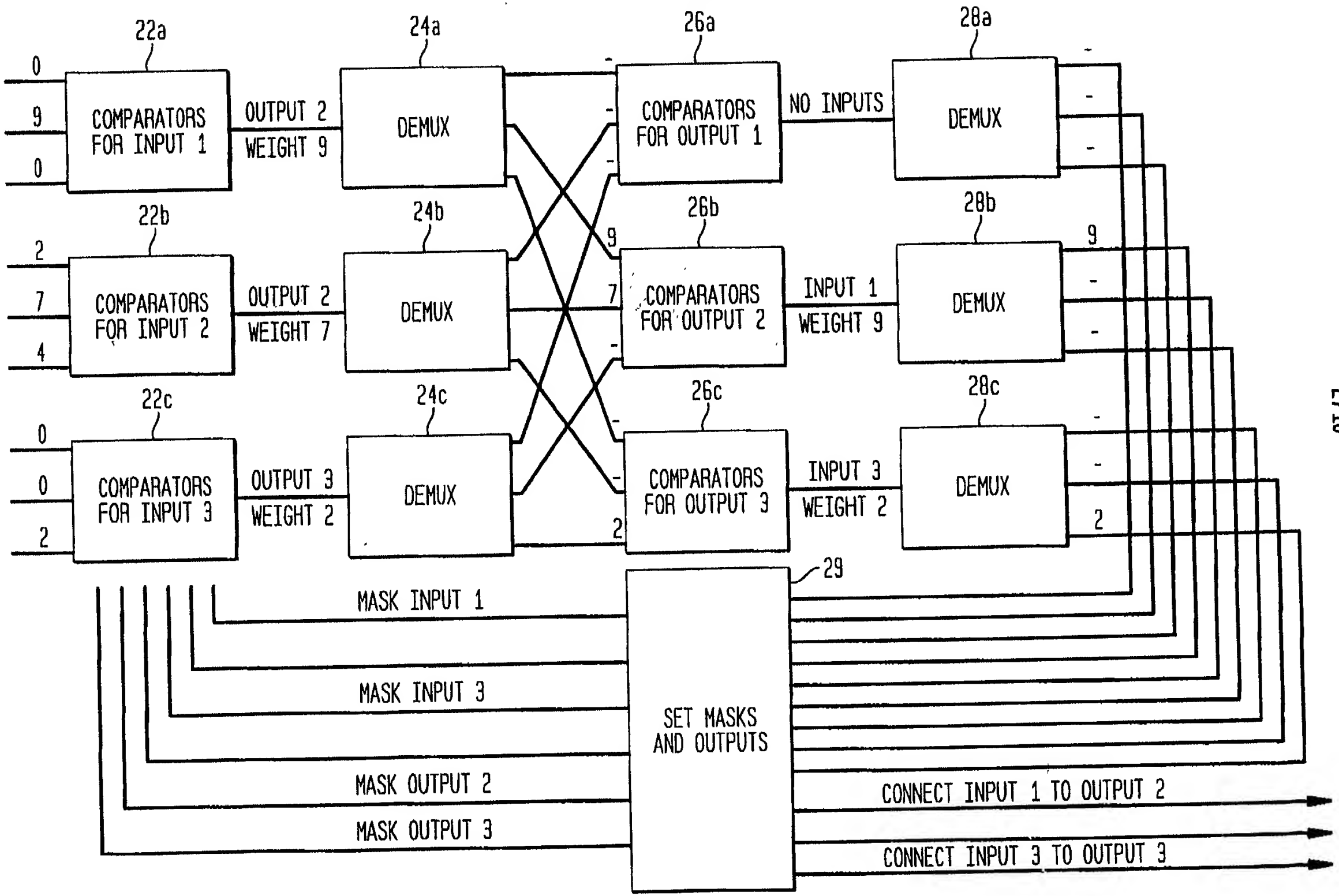

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FIG. 2B

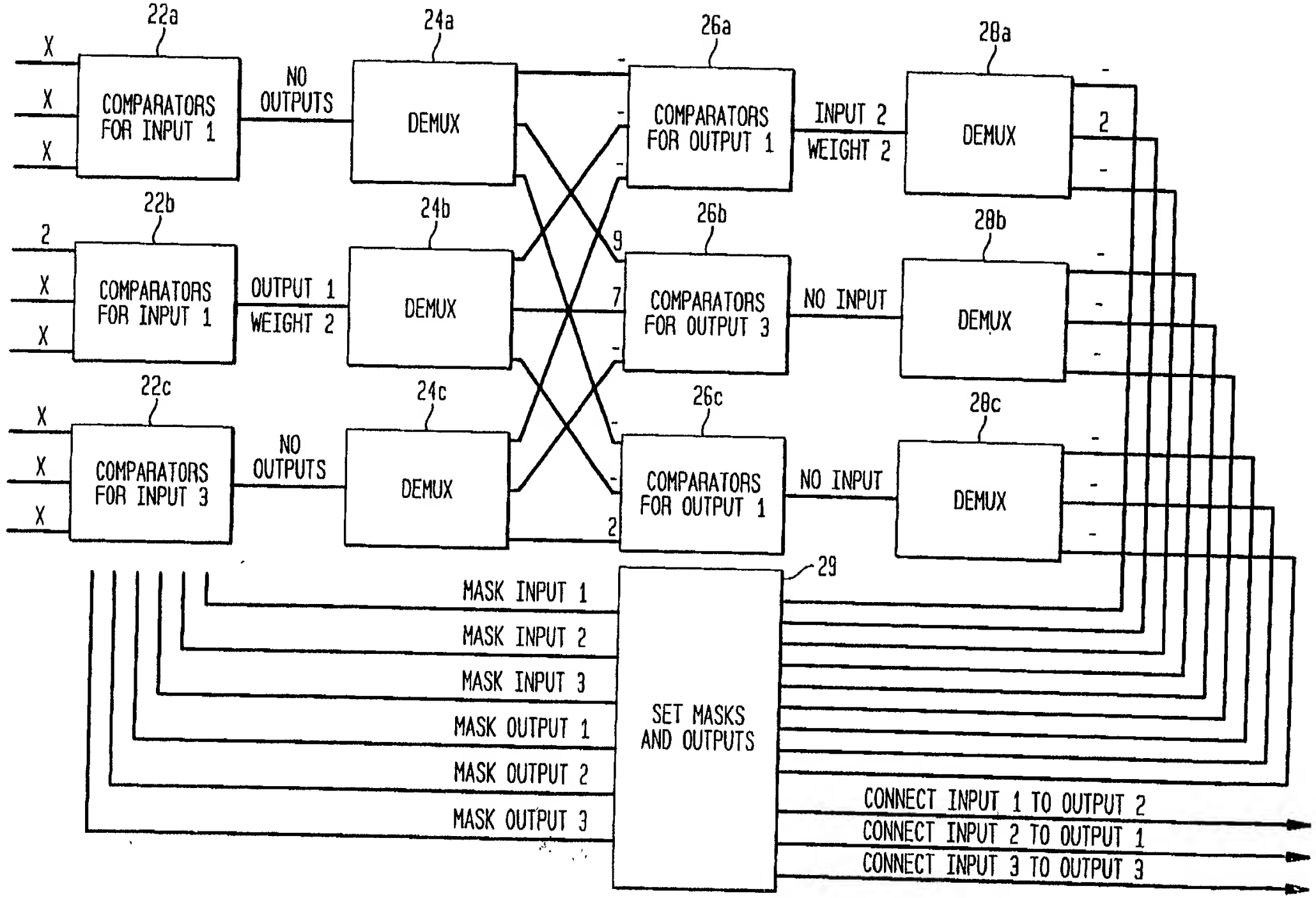

22a
X
X
X
COMPARATORS FOR INPUT 1
NO OUTPUTS
24a
DEMUX
26a
COMPARATORS FOR OUTPUT 1
INPUT 2 WEIGHT 2
28a
DEMUX
2
22b
2
X
X
COMPARATORS FOR INPUT 1
OUTPUT 1 WEIGHT 2
24b
DEMUX
26b
9
7
COMPARATORS FOR OUTPUT 3
NO INPUT
28b
DEMUX
22c
X
X
X
COMPARATORS FOR INPUT 3
NO OUTPUTS
24c
DEMUX
2
26c
COMPARATORS FOR OUTPUT 1
NO INPUT
28c
DEMUX
29
MASK INPUT 1
MASK INPUT 2
MASK INPUT 3
MASK OUTPUT 1
MASK OUTPUT 2
MASK OUTPUT 3
SET MASKS AND OUTPUTS
CONNECT INPUT 1 TO OUTPUT 2
CONNECT INPUT 2 TO OUTPUT 1
CONNECT INPUT 3 TO OUTPUT 3

FIG. 3

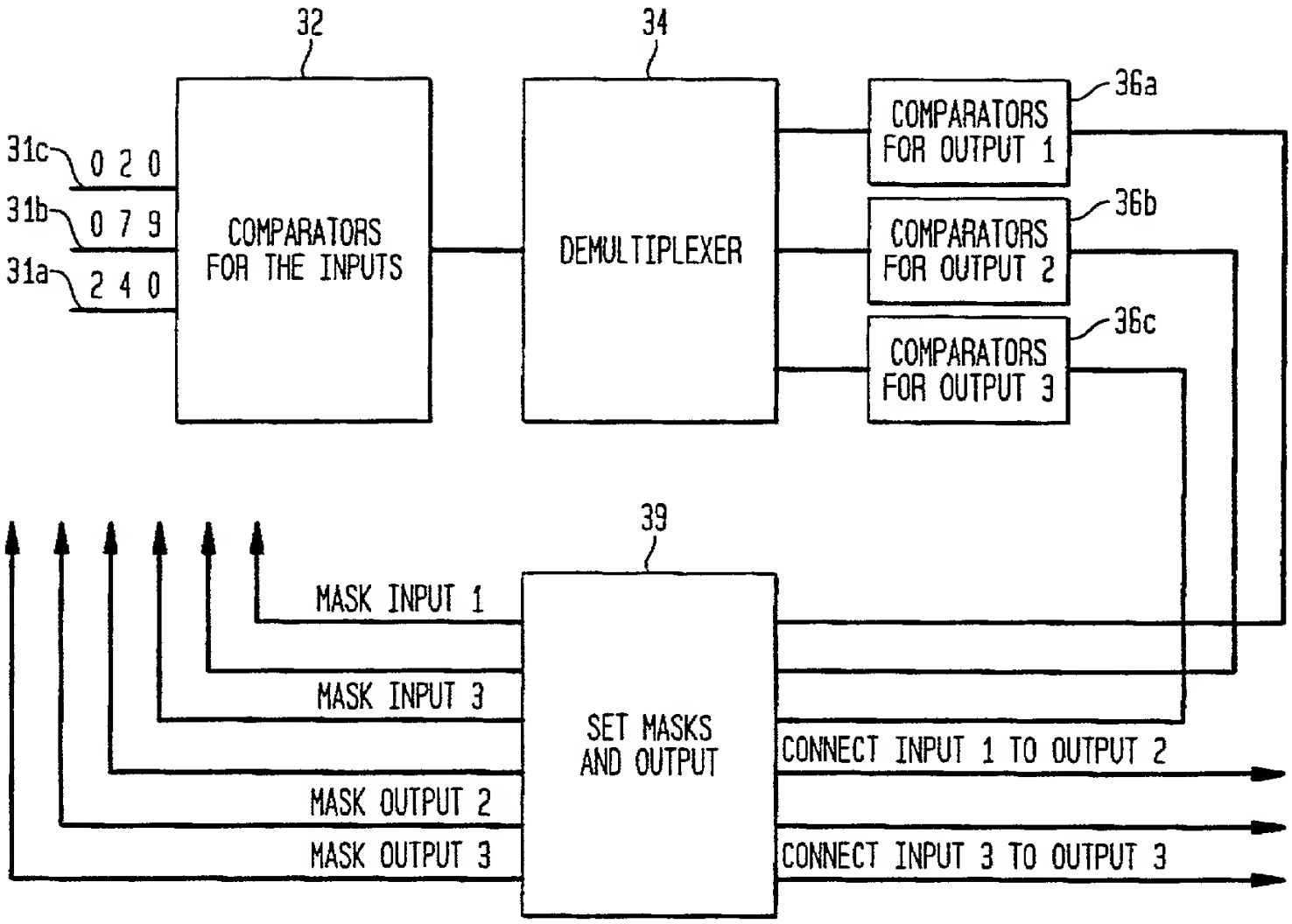

32
34
36a
36b
36c
31c
0 2 0
31b
0 7 9
31a
2 4 0
COMPARATORS FOR THE INPUTS
DEMULTIPLEXER
COMPARATORS FOR OUTPUT 1
COMPARATORS FOR OUTPUT 2
COMPARATORS FOR OUTPUT 3
39
MASK INPUT 1
MASK INPUT 3
MASK OUTPUT 2
MASK OUTPUT 3
SET MASKS AND OUTPUT
CONNECT INPUT 1 TO OUTPUT 2
CONNECT INPUT 3 TO OUTPUT 3

FIG. 4

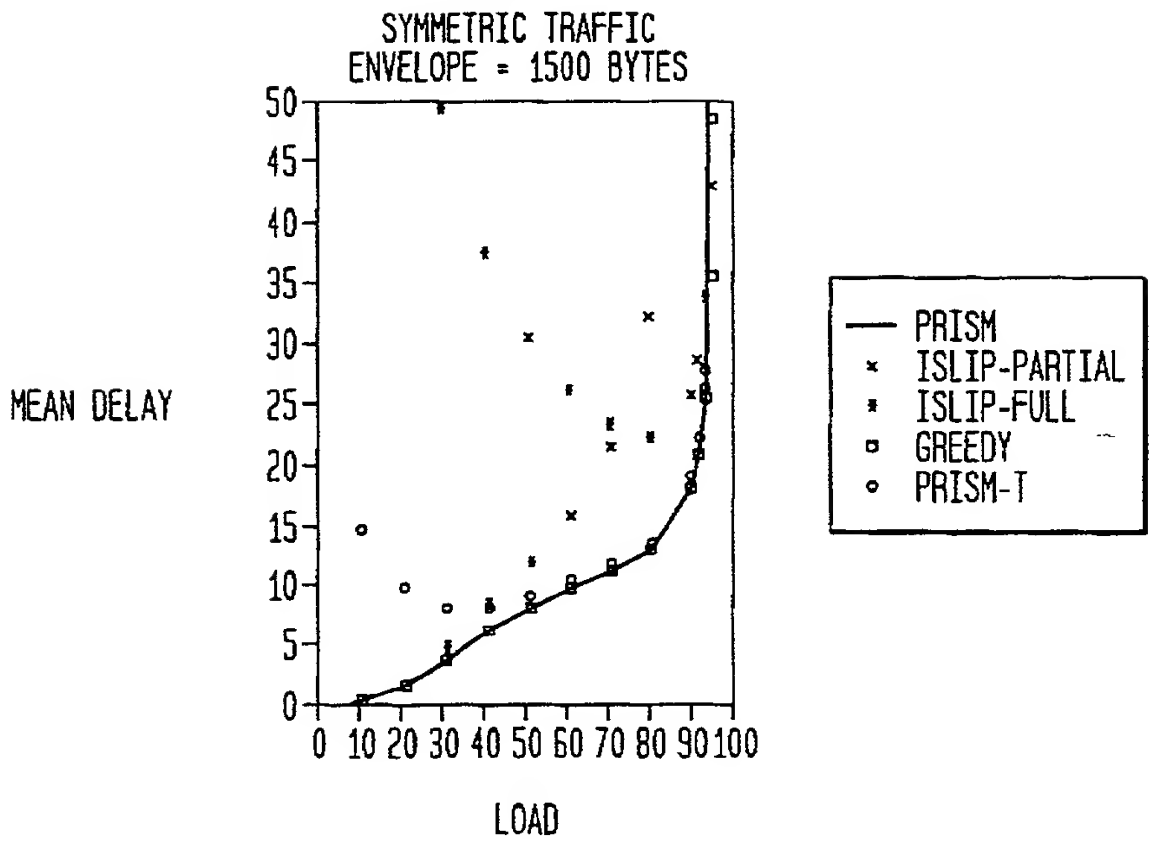

SYMMETRIC TRAFFIC
ENVELOPE = 1500 BYTES
MEAN DELAY
LOAD
0 10 20 30 40 50 60 70 80 90 100
0 5 10 15 20 25 30 35 40 45 50
PRISM
ISLIP-PARTIAL
ISLIP-FULL
GREEDY
PRISM-T

FIG. 5

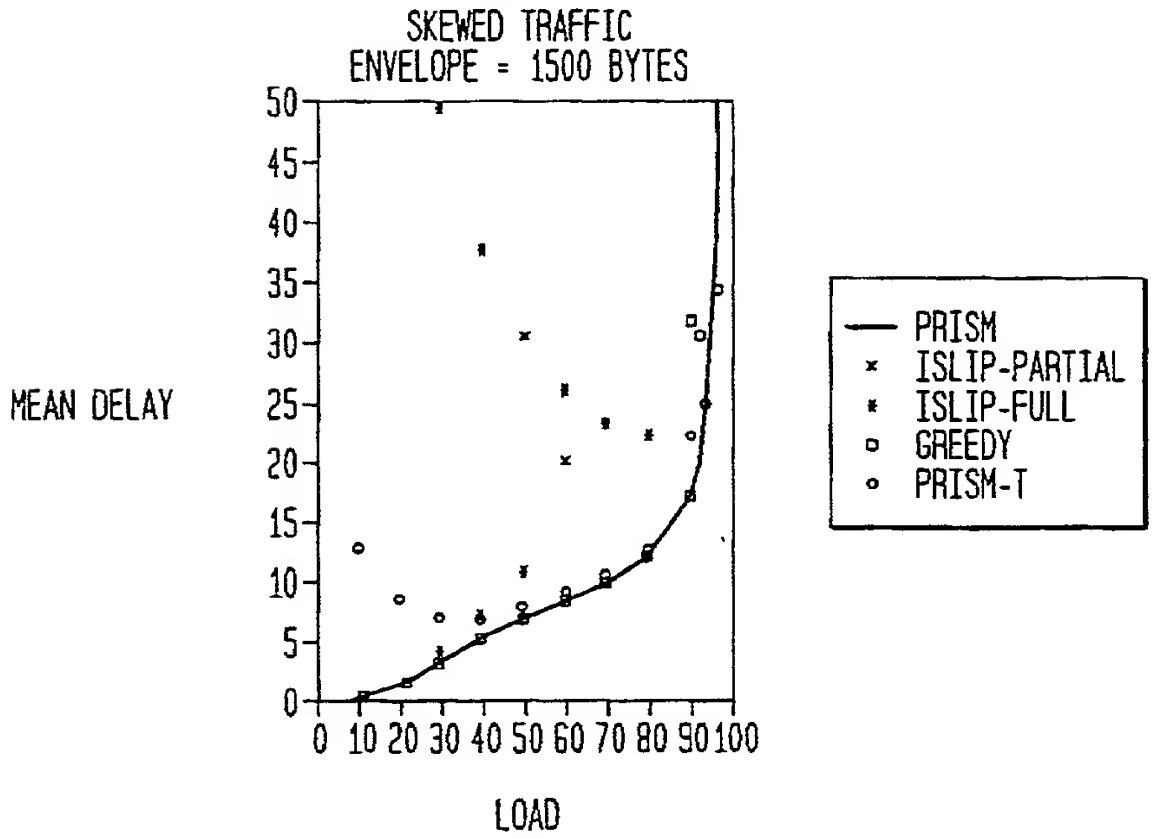

SKEWED TRAFFIC
ENVELOPE = 1500 BYTES
MEAN DELAY
LOAD
0 10 20 30 40 50 60 70 80 90 100
0 5 10 15 20 25 30 35 40 45 50
PRISM
ISLIP-PARTIAL
ISLIP-FULL
GREEDY
PRISM-T

FIG. 6

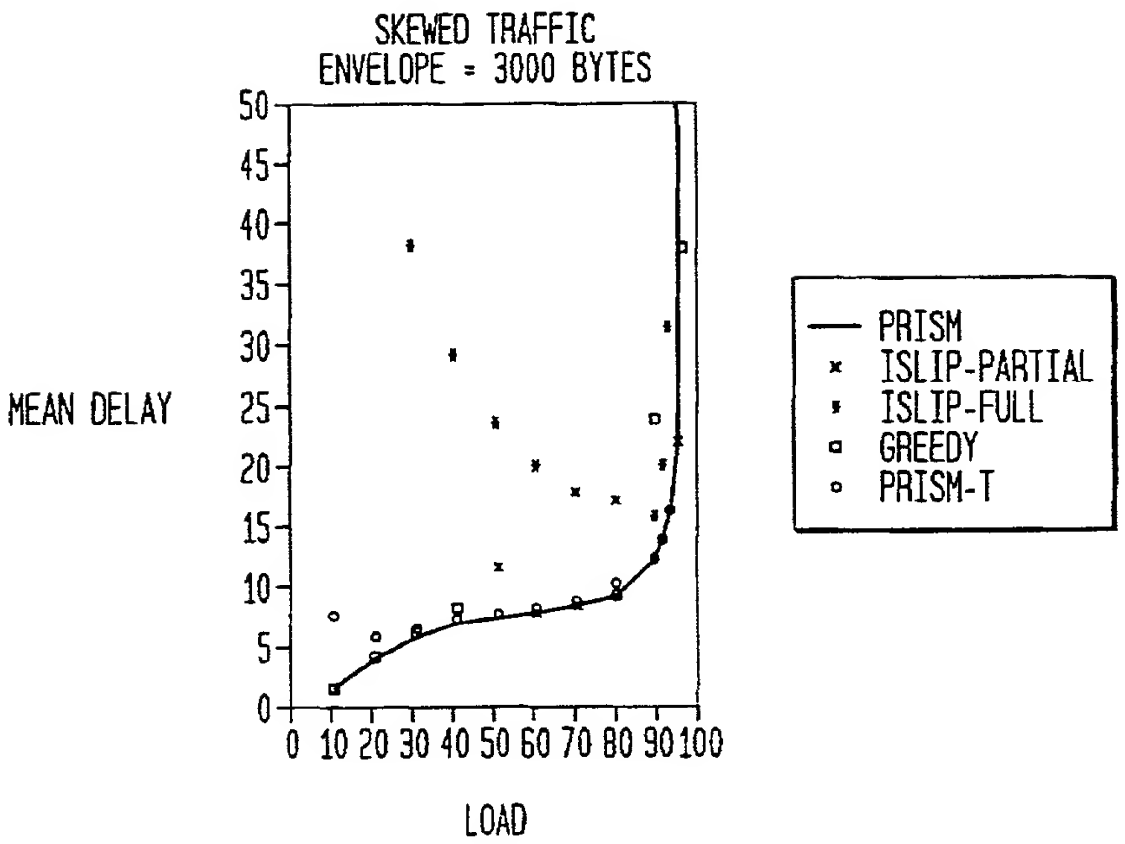

SKEWED TRAFFIC
ENVELOPE = 3000 BYTES
MEAN DELAY
0
5
10
15
20
25
30
35
40
45
50
0 10 20 30 40 50 60 70 80 90 100
LOAD
PRISM
ISLIP-PARTIAL
ISLIP-FULL
GREEDY
PRISM-T

FIG. 7

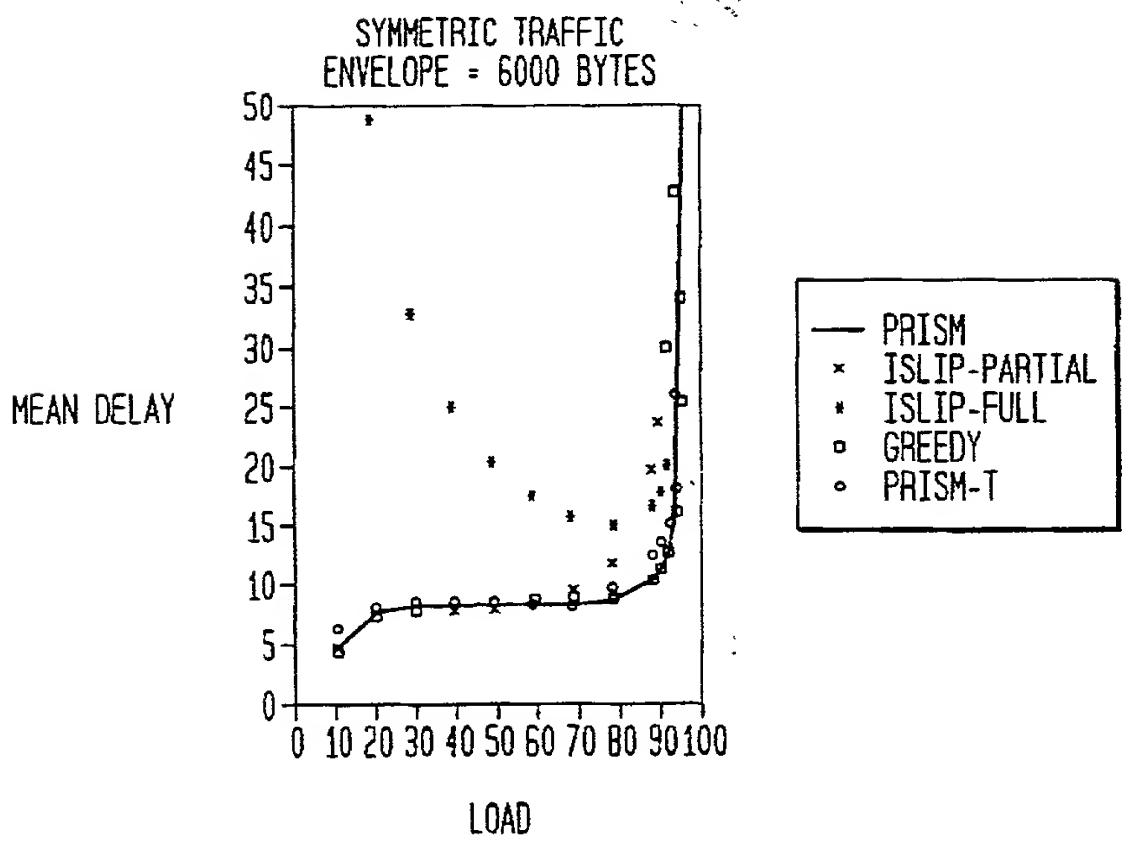

SYMMETRIC TRAFFIC
ENVELOPE = 6000 BYTES
MEAN DELAY
0
5
10
15
20
25
30
35
40
45
50
0 10 20 30 40 50 60 70 80 90 100
LOAD
PRISM
ISLIP-PARTIAL
ISLIP-FULL
GREEDY
PRISM-T

FIG. 8

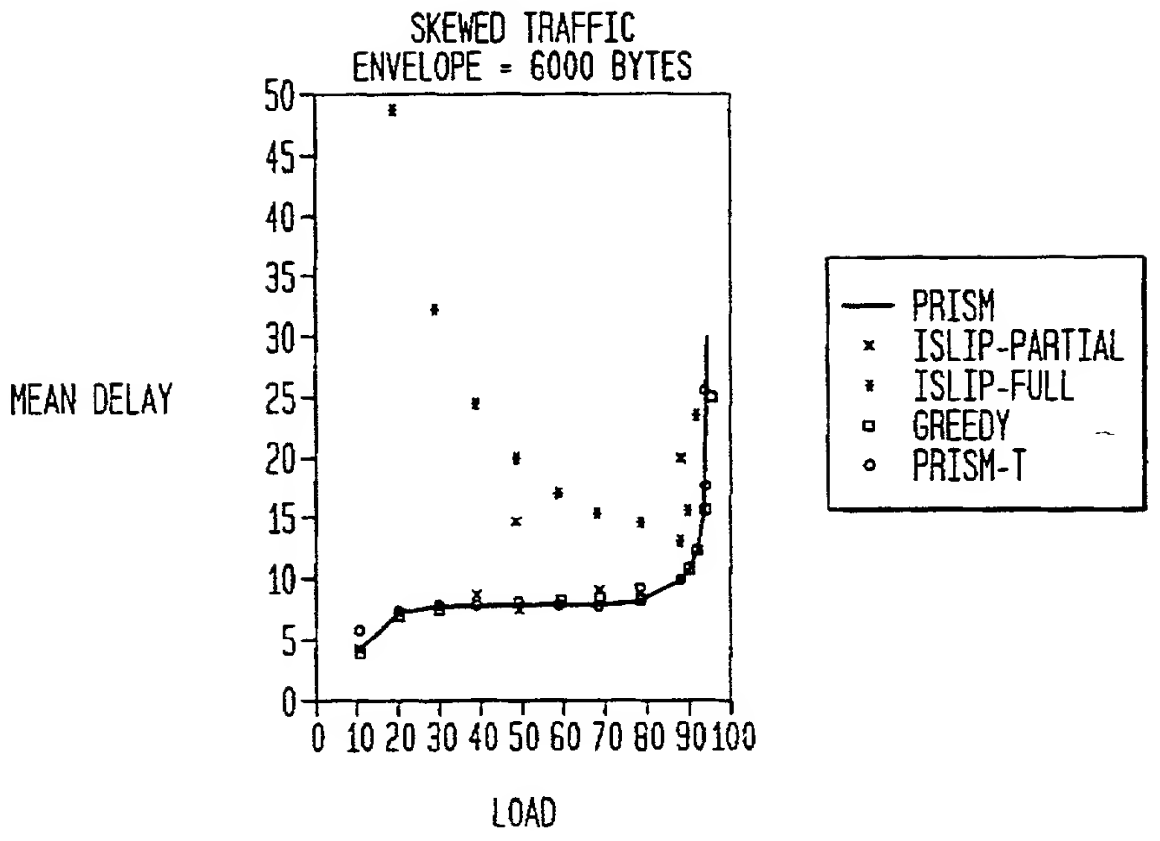

SKEWED TRAFFIC
ENVELOPE = 6000 BYTES
MEAN DELAY
50
45
40
35
30
25
20
15
10
5
0
0 10 20 30 40 50 60 70 80 90 100
LOAD
PRISM
ISLIP-PARTIAL
ISLIP-FULL
GREEDY
PRISM-T

FIG. 9

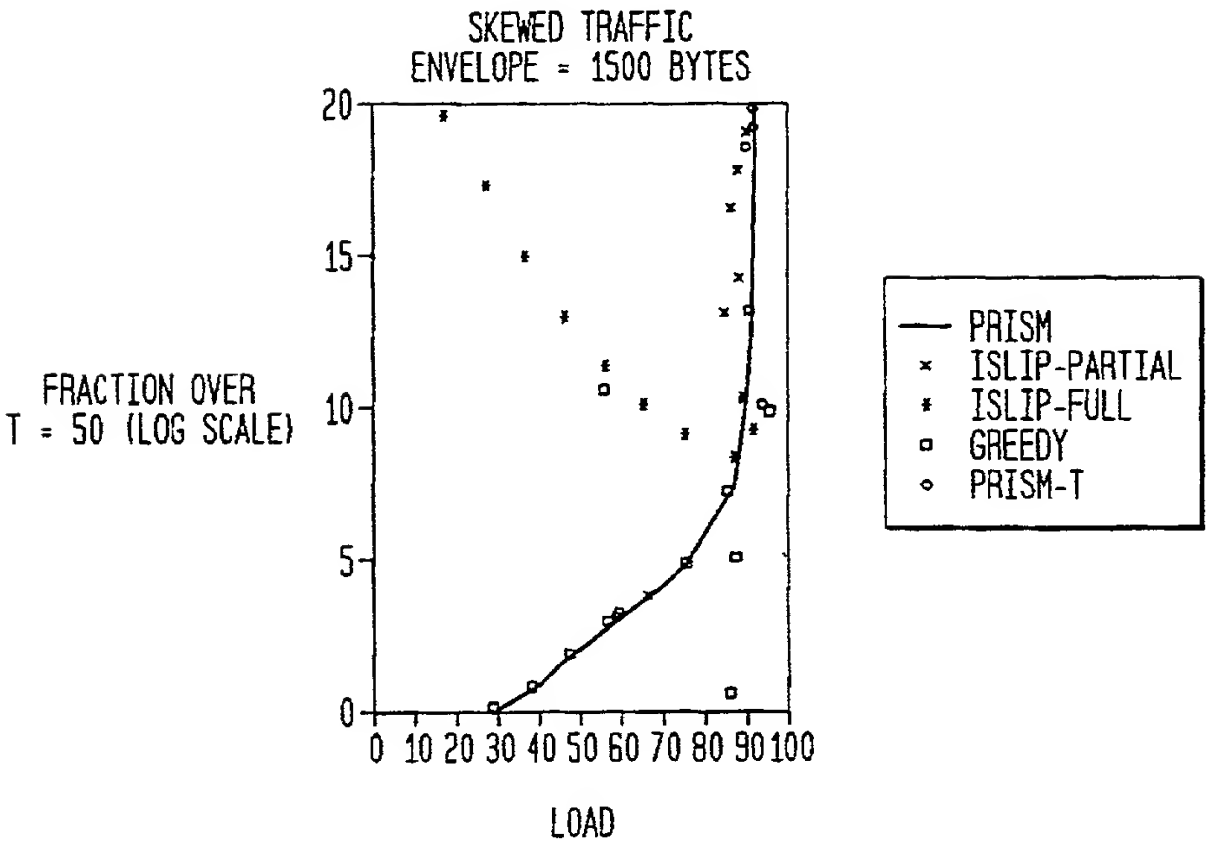

SKEWED TRAFFIC
ENVELOPE = 1500 BYTES
FRACTION OVER
T = 50 (LOG SCALE)
20
15
10
5
0
0 10 20 30 40 50 60 70 80 90 100
LOAD
PRISM
ISLIP-PARTIAL
ISLIP-FULL
GREEDY
PRISM-T

FIG. 10

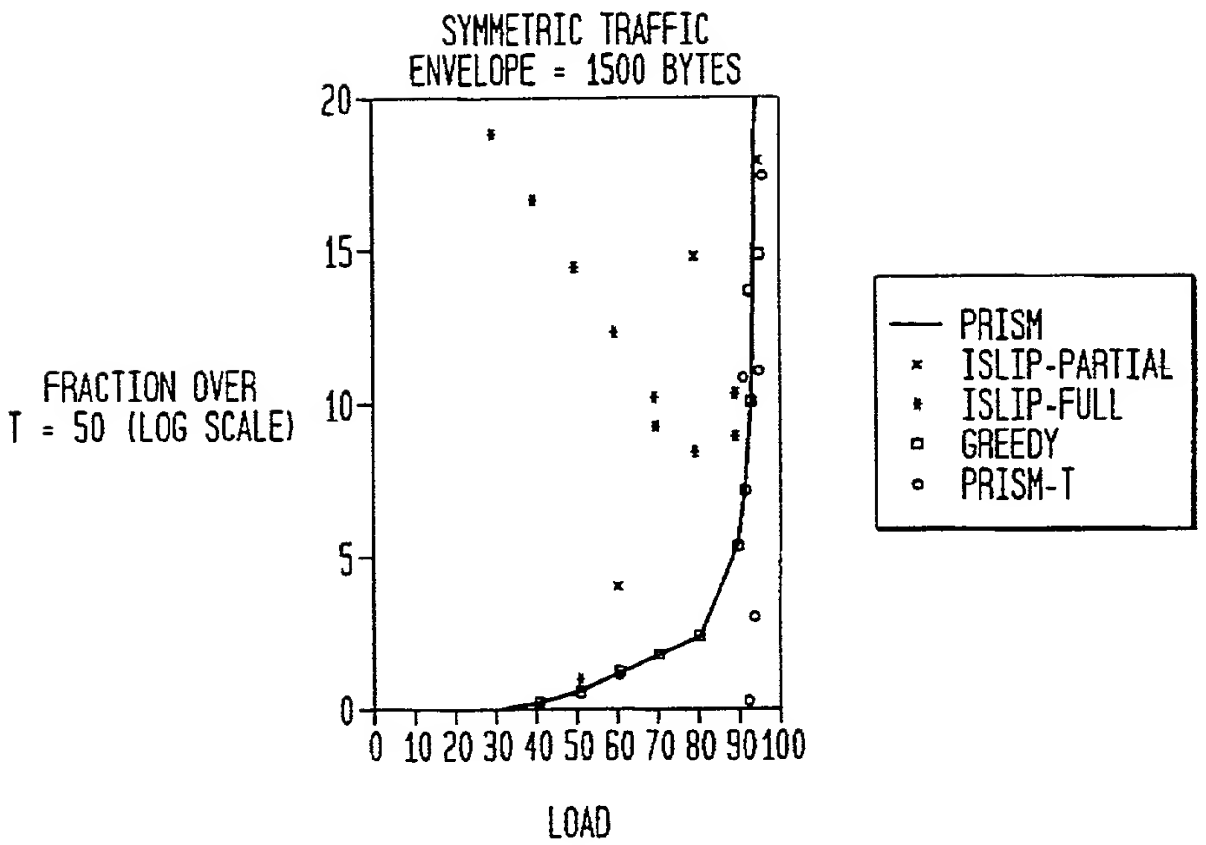

SYMMETRIC TRAFFIC
ENVELOPE = 1500 BYTES
FRACTION OVER
T = 50 (LOG SCALE)
20
15
10
5
0
0 10 20 30 40 50 60 70 80 90 100
LOAD
PRISM
ISLIP-PARTIAL
ISLIP-FULL
GREEDY
PRISM-T

FIG. 11

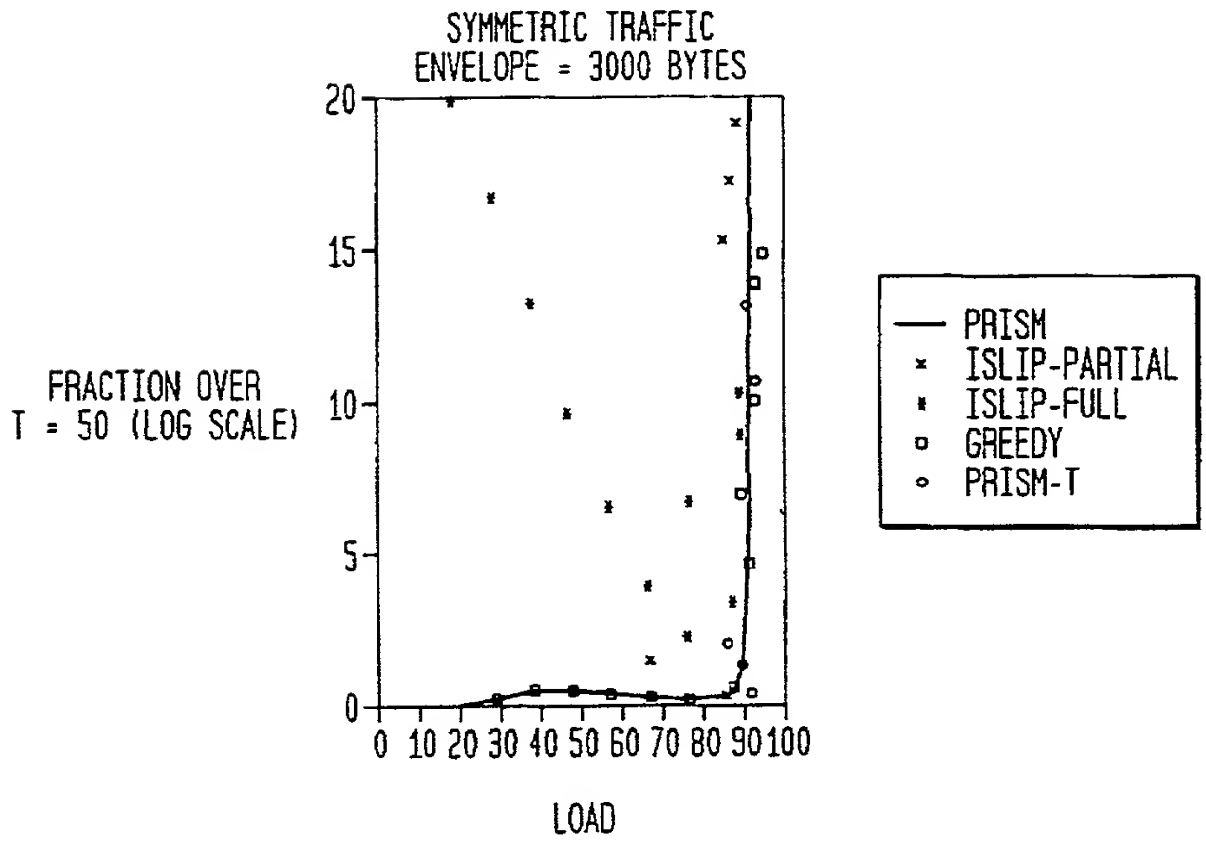

SYMMETRIC TRAFFIC
ENVELOPE = 3000 BYTES
FRACTION OVER
T = 50 (LOG SCALE)
20
15
10
5
0
0 10 20 30 40 50 60 70 80 90 100
LOAD
PRISM
ISLIP-PARTIAL
ISLIP-FULL
GREEDY
PRISM-T

FIG. 12

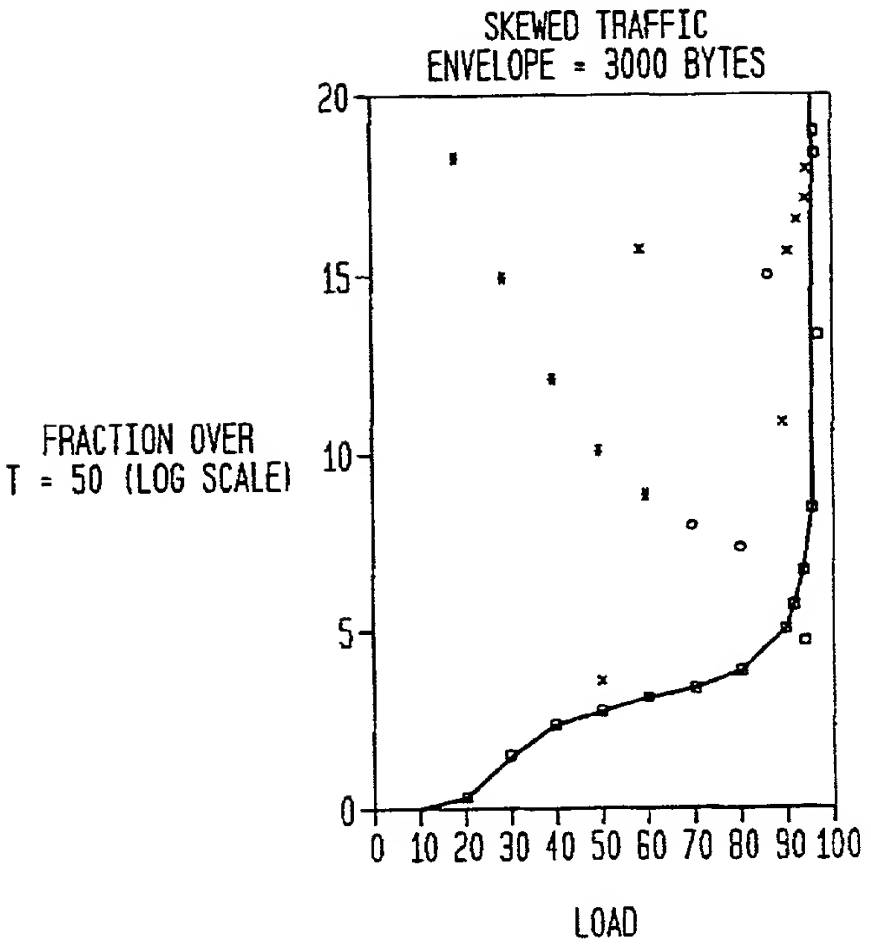

SKEWED TRAFFIC
ENVELOPE = 3000 BYTES
FRACTION OVER
T = 50 (LOG SCALE)
20
15
10
5
0
0 10 20 30 40 50 60 70 80 90 100
LOAD

FIG. 13

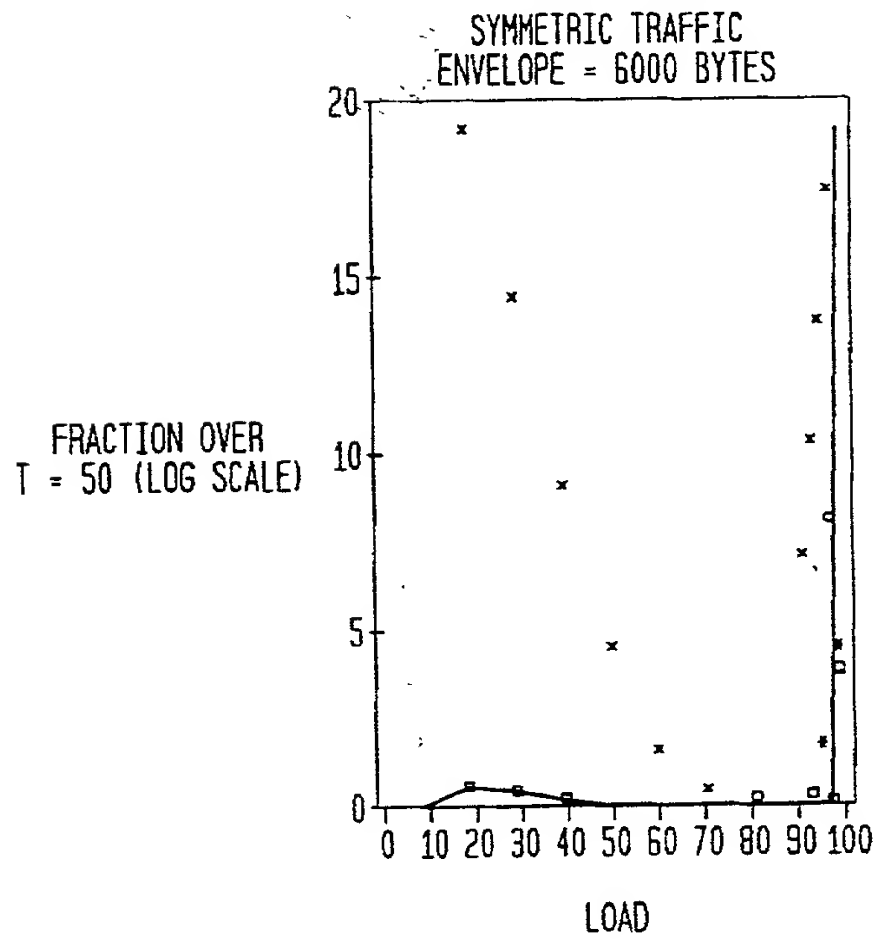
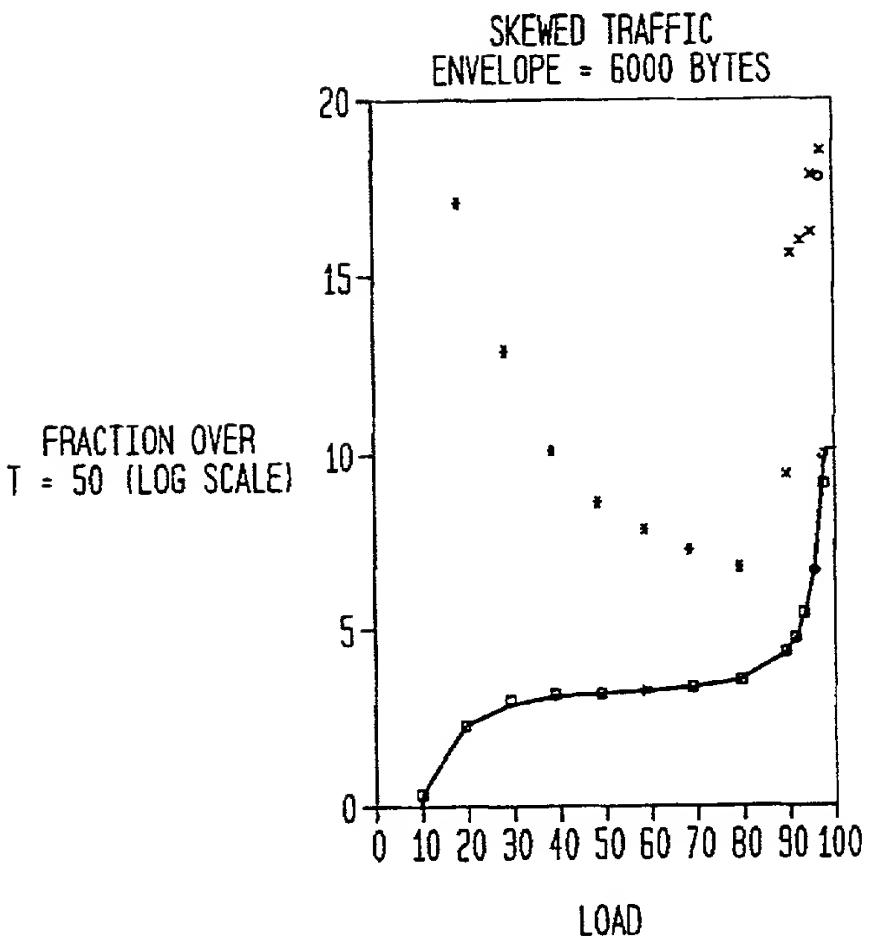

SYMMETRIC TRAFFIC
ENVELOPE = 6000 BYTES
FRACTION OVER
T = 50 (LOG SCALE)
20
15
10
5
0
0 10 20 30 40 50 60 70 80 90 100
LOAD

FIG. 14


SKEWED TRAFFIC
ENVELOPE = 6000 BYTES
FRACTION OVER
T = 50 (LOG SCALE)
20
15
10
5
0
0 10 20 30 40 50 60 70 80 90 100
LOAD